

CLAIMS:

1. System (20,22) for converting an analog wanted signal into a digital wanted signal and for suppressing an analog unwanted signal and comprising
 - analog filter (1,2) for at least partly suppressing the analog wanted signal and the analog unwanted signal, resulting in an analog output signal;
- 5 analog-to-digital-converter (5) for converting the analog output signal into a digital output signal; and
 - a compensator (3,4) for compensating the digital output signal for the at least partly suppressing of the analog wanted signal.
- 10 2. System (20,22) according to claim 1, wherein the compensator (3,4) comprises a digital filter or an equalizer.
- 15 3. System (20) according to claim 1, wherein the analog wanted signal is a low intermediate frequency signal.
- 20 4. System (22) according to claim 1, wherein the analog wanted signal is a zero intermediate frequency signal, with a first set of analog filter (2), analog-to-digital-converter (5) and compensator (4) converting and suppressing an in-phase signal and with a second set of analog filter, analog-to-digital-converter and compensator converting and suppressing a quadrature signal.
- 25 5. System (20,22) according to claim 1, wherein the analog filter (1,2) and the compensator (3,4) are matched.
6. System (20,22) according to claim 1, wherein the compensator (3,4) is adaptive and/or comprises a control loop to avoid any matching between the analog filter (1,2) and the compensator (3,4).

7. System (20,22) according to claim 1, further comprising an amplifier (6) for amplifying the analog wanted signal and the analog unwanted signal.
8. System (20,22) according to claim 1, further comprising an amplifier for amplifying the analog output signal.
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9. Method of converting an analog wanted signal into a digital wanted signal and for suppressing an analog unwanted signal and comprising the steps of at least partly suppressing the analog wanted signal and the analog unwanted signal, resulting in an analog output signal;
10 converting the analog output signal into a digital output signal; and compensating the digital output signal for the at least partly suppressing of the analog wanted signal.
- 15 10. Receiver (30) comprising a tuner (31) and a channel decoder (32), the tuner (31) comprising an analog filter (1) for at least partly suppressing an analog wanted signal and an analog unwanted signal, resulting in an analog output signal; and the channel decoder comprising
20 an analog-to-digital-converter (5) for converting the analog output signal into a digital output signal; and a compensator (3) for compensating the digital output signal for the at least partly suppressing of the analog wanted signal.
- 25 11. Tuner (31) for use in the receiver (30) as claimed in claim 10 and comprising the analog filter (1) for at least partly suppressing the analog wanted signal and the analog unwanted signal, resulting in the analog output signal to be supplied to the channel decoder (32).
- 30 12. Channel decoder (32) for use in a receiver (30) as claimed in claim 10 and comprising the analog-to-digital-converter (5) for converting the analog output signal originating from the tuner (31) into the digital output signal; and

the compensator (3) for compensating the digital output signal for the at least partly suppressing of the analog wanted signal.